

5

**Abstract**

The present invention relates generally to a method of visualizing the sound fields of sound sources using acoustic holography, and more particularly to a method, which discriminates the sound fields of individual sound sources having the same frequency component and visualizes the sound fields thereof.

10 In the method of visualizing sound fields of individual sound sources using acoustic holography, sound pressures are calculated on a sound source plane using sound pressures measured on a hologram plane. A single sound source having a position of a maximum sound pressure on the sound source plane is extracted, and a value of the sound pressure at the position is evaluated as a signal coherent to the sound source. A sound  
15 field of the extracted sound source is obtained using the coherent signal. The sound field of the extracted sound source is eliminated from sound fields of all sound sources, and it is determined whether any remaining sound field exists. The process returns to the sound field obtaining operation if any remaining sound field exists.